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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re:	Patent Application of John M. Manners et al.	Group Art Unit: 1653
Appln. No.:	09/331,631	Examiner: H. Robinson
Filed:	June 21, 1999	
For:	ANTIMICROBIAL PROTEINS	Attorney Docket No. CULLN23.001APC

DECLARATION OF DONALD JAMES MACLEAN UNDER 37 C.F.R. § 1.132

I, Donald James Maclean, declare and state as follows:

1. I am a biochemist who holds the degrees of B.Sc. with First Class Honours (The University of Sydney) and Ph.D. (The University of Queensland). I am also a qualified pharmaceutical chemist. I am currently a Reader in Biochemistry in the Department of Biochemistry at The University of Queensland, St Lucia, Queensland, Australia, a position I have held since 1974. Prior to that, I started my Ph.D. research at The University of Sydney in 1967 and completed it at The University of Queensland in 1972, after which I was employed as a Senior Scientific Officer at the Agricultural Research Council Unit of Developmental Botany at Cambridge UK from January 1972 to June 1974.

2. My research background has largely been in the area of the interaction between plants and their microbial pathogens, especially fungi and oomycete pathogens. Some of my current research (largely funded by an Australian Research Council [ARC] grant) involves the cloning and characterization of avirulence genes in plant pathogens. In other research (funded by a Sugar Research and Development Corporation grant, an ARC Research Infrastructure grant and The University of Queensland) I have developed expertise in the use of real time PCR technology for the diagnosis of plant pathogens and the quantification of gene expression. I am also a member of a collaborative team which uses cutting edge technologies such as microarrays, mutational analyses and gene expression to identify signaling pathways that regulate the expression of plant defence genes including genes that encode antimicrobial proteins.

3. Since gene expression has been a major aspect of my research and teaching interests and responsibilities, both past and present, I am familiar with the chemical and physical characteristics of proteins. In particular, I am familiar with the amino acid building blocks of proteins.

4. I have been asked to comment on the following passage, which, I have been informed, relates to the subject US patent application:

A protein fragment having antimicrobial activity, wherein said protein fragment is a polypeptide comprising a cysteine spacing of C-2X-C-3X-C-(10-12)X-C-3X-C-3X-C (SEQ ID Nos: 37-39) wherein X is any amino acid residue, and C is cysteine.

5. On first reading the passage, the "X" appeared to me to denote any amino acid residue including cysteine. However, on closer inspection, I realised that the phrase "a cysteine spacing of ...." Would exclude any other cysteines as an X residue because the protein fragment would no longer conform to the defined cysteine spacing.

6. In my opinion, therefore, it is implicit within the passage that "X is any amino acid residue" must be read as "X is any amino acid residue other than cysteine".

I hereby declare that all statements made herein on my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that wilful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such wilful statements may jeopardize the validity of the application, or any patent issued thereon.

15 March 2002

(Date)

By: D. J. Maclean

Donald James Maclean